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1112. Peripheral Inserted Central Catheter Complications in Rural vs. Urban Children Receiving Long Term Parenteral Antimicrobial Therapy

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Background. Peripherally inserted central catheters (PICC) are used for treating infections requiring prolonged intravenous antibiotic therapy (IVAT) in children. Given the lack of data on rural PICC use as well as the rural nature of our state, we studied the safety of home PICC use for treating infections in children living in rural settings.

Methods. We identified children <18 years admitted from January 1, 2005 to March 1, 2014 to the University of New Mexico Hospital (UNMH) through analysis of 43 different ICD-9 and CPT codes indicative of PICC placement, with analysis of the medical record to identify patients discharged on IVAT. All data were entered into REDCap and analyzed on Stata. We recorded demographic data, the antibiotic used, the duration/indication for the PICC, and the type/timing of complications. To classify rural vs. urban residence, we used the rural-urban continuum code (RUCC) from U.S. Census data, and the driving time in hours (h) to the nearest level 1, 2, or 3 trauma center and UNMH using MapQuest. All patients had either weekly home health or clinic visits, but none utilized an outpatient parenteral antimicrobial therapy (OPAT) clinic. Linear regression models assessed for differences between outcome and response variables.

Results. Of 866 subjects with a PICC, 221 were discharged on IVAT. 134 (60.6%) were boys and 87 (39.4%) were girls (mean age 9.8 years). The mean driving time to the nearest level 1, 2, or 3 trauma center was 0.6 hours (range 0.1–3.0 hours), while the mean driving time to UNMH was 1.3 hours (range 0.1–5.0 hours). PICCs were utilized for a mean of 26.1 days at home. The most common antibiotics used were Ceftazidime (n = 41) and Nafcillin (n = 40). Osteoarticular infections and cystic fibrosis exacerbations were the most common indications for PICC use (68.8%). 47 children (21.3%) experienced complications associated with their PICC at a mean of 24.7 days from insertion, most commonly occlusion (n = 13, 27.7%) or accidental removal (n = 13, 27.7%). 40 PICCs (18.1%) were removed prematurely due to a complication. No association was found between RUCCs or driving times to UNMH or the nearest level 1, 2 or 3 trauma center with any of these complications nor with complications overall (P = 0.11 to 0.96).

Disclosure. All authors: No reported disclosures.

1114. Implementation of a Standardized Protocol for Hospitalized Patients Who Inject Drugs and Require Long-Term Antibiotics Reduces Length of Stay Without Increasing 30-Day Readmissions

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Background. Injection drug use (IDU) is a growing epidemic, and persons who inject drugs (PWID) are at high risk for infection. IDU is a barrier to outpatient parenteral antimicrobial therapy (OPAT) and provider experience and knowledge may lead to variation in patient care. Recognizing this problem, a multi-disciplinary team implemented a protocol for management of PWID requiring IV antibiotics. The main goals were to standardize the evaluation and risk assessment of PWID with infections PRIOR to the protocol implementation.

Methods. A protocol was developed outlining the evaluation, diagnosis, risk-assessment, treatment, maintenance, and follow up of PWID requiring prolonged IV antibiotics (Figure 1). Patients meeting inclusion criteria were identified and the multidisciplinary team assessed the patient. ID confirmed the diagnosis and outlined the treatment plan, and addiction medicine performed a 9-point risk assessment. Low-risk patients were discharged to complete OPAT. Medium risk and high-risk patients remained hospitalized and were offered group therapy, opioid replacement therapy if applicable, and were reassessed weekly for discharge. These patients were compared with previously identified PWID requiring antibiotics prior to the protocol implementation.

Results. 37 patients pre-protocol were compared with 34 patients following implementation. Demographics were similar except 56% of the post-implementation group were diagnosed with a comorbid psychiatric disorder vs. 27% in the pre-implementation group (P = 0.01). There was no statistical difference between the number of patients who left AMA in either group (13.5% pre; 23.5% post; p = 0.28) or the